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EXAMINER

POPHAM, JEFFREY D

ART UNIT	PAPER NUMBER
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2437

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/614,765

Applicant(s)

KOCHER ET AL.

Examiner

JEFFREY D. POPHAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Remarks

Claims 2-25 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/13/2009 has been entered.

Response to Arguments

2. Applicant's arguments filed 2/13/2009 have been fully considered but they are not fully persuasive.

Applicant argues that there is basis in the application as originally filed for program logic configured for installation on a playback device, and refers to various locations in the specification. These locations of the specification have to do with executing and/or storing program code, but do not have basis for the entire scope of "installing" or "installation". The 112, first paragraph, rejection has been withdrawn, but it is noted that any reference in the claims to installation or the like has been construed as executing and/or storing program code on the device, as there is no basis for use of an installation program or the like in the application as originally filed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following is a list of examples of the issues found within the claims that make the claims indefinite.

Near the end of claim 2, a limitation refers to "decrypting each of said versions", however it was just stated that "each of said authorized playback devices is capable of deciphering at least one, but not all, of said versions". Therefore, no playback device can decrypt all versions as recited in claim 2.

Claim 3 refers to "said security checks", which does not have sufficient antecedent basis.

Claim 6 refers to "said audiovisual content" which does not have sufficient antecedent basis.

Claim 9 refers to "the security of a vulnerable device", which does not have sufficient antecedent basis.

Claim 12 recites "verify whether valid digital signatures contained on the storage medium authenticate the storage medium". It is unclear how a valid digital signature would not authenticate the storage medium, however, in that a valid digital signature is already valid, and need not be further verified, since it has already been validated as a correct and authentic signature.

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Claim 13 does not further limit claim 12, but merely restates what is already in claim 12 (e.g. claim 12 refers to "a Turing-complete interpreter " and claim 13 refers to "an interpreter for a Turing-complete language"). Since these are the same interpreter, claim 13 does not further limit the parent claim.

Claim 15 attempts to claim that the combination of versions that a device plays from one medium does not uniquely identify the device. However, claim 12 recites that "a combination of said versions selected in the course of playing content from the storage medium uniquely identifies the device". Since claim 12 already recites the device being uniquely identified by a single medium, claim 15 cannot change this to be the opposite of what is stated in its parent.

The above is merely a list of examples of the issues that make the claims indefinite. Other claims have the same or like issues as those mentioned above, and all must be corrected in response to this office action.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 2-11, 21, and 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These claims purport to be "A storage medium containing content". This medium is clearly not a process, a machine, a manufacture, or a composition of matter. Therefore, the

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claims fail to fall within a statutory category of invention, and are non-statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-13, 15, 16, and 19-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benaloh (U.S. Patent 7,065,216) in view of Nonaka (U.S. Patent Application Publication 2002/0035492), Kyle (U.S. Patent 6,141,681), and Morito (U.S. Patent 6,782,190).

Regarding Claim 2,

Benaloh discloses a storage medium containing content with protections against unauthorized copying, the storage medium comprising:

Content that is encrypted by using broadcast encryption, whereby each of a plurality of authorized playback devices has cryptographic keys sufficient for decrypting the content and each of a plurality of unauthorized playback devices do not have keys sufficient for decrypting the content (Column 3, line 65 to Column 4, line 6; and Column 9, line 61 to Column 11, line 12);

A plurality of versions for each of a plurality of portions of the content, wherein the versions for each portion are distinguished from each other, the versions are encrypted with different keys such that each of the authorized playback devices is capable of deciphering at least one, but not all, of the versions of each of the portions, the combination of the portions decipherable by a given player usable to identify the player, logic being further configured to provide a correct set of decryption keys (Column 9, line 61 to Column 11, line 12); and

Interface logic defining an interface usable to interact with a user and to control playback of the content (Figure 1; and Column 3, line 24 to Column 4, line 40);

But does not explicitly disclose a digital signature authenticating at least an identifier of the storage medium, a revocations list for identifying at least one revoked storage medium, program logic for an interpreter of a Turing complete language, the program logic adapted for execution on a playback device in order to play the content, the program logic configured for installation on the playback device, or the program logic further configured for cryptographically authenticating the revocations list.

Nonaka, however, discloses an identifier of the storage medium (Paragraphs 137, 144, and 230);

A revocations list for identifying at least one revoked storage medium (Paragraphs 232-234);

Content that is encrypted by using broadcast encryption, whereby each of a plurality of authorized playback devices has cryptographic keys sufficient for decrypting the content and each of a plurality of revoked playback devices do not have keys sufficient for decrypting the content (Paragraphs 105, 130, and 223-234); and

Program logic further configured for cryptographically authenticating the revocations list (Paragraphs 223-234). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the revocation methods of Nonaka into the content protection system of Benaloh in order to allow the system to revoke entities, such as devices and media, that are to be disallowed access to content, thereby providing better assurance that media and devices are proper before allowing content usage.

Kyle, however, discloses program logic for an interpreter of a Turing complete language, the program logic adapted for execution on a playback device in order to play the content, the program logic configured for installation on the playback device (Column 3, line 28 to Column 4, line 30; Column 4, line 47 to Column 5, line 14; Column 7, line 59 to Column 8, line 5; and Column 9, lines 19-29). It would have been obvious to one of ordinary skill in the art at the

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time of applicant's invention to incorporate the self protecting data package system of Kyle into the content protection system of Benaloh as modified by Nonaka in order to allow the system to update the player and anti-virus software, thereby maintaining security of the system with ease, as well as to provide self-sufficient data packages that can perform compression, decryption, virus checking, etc. without the need of specialized hardware or software.

Morito, however, discloses a digital signature authenticating at least an identifier of the storage medium (Column 7, line 38 to Column 8, line 13; and Column 9, line 51 to Column 10, line 9). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the signature and authentication techniques of Morito into the content protection system of Benaloh as modified by Nonaka and Kyle in order to allow the system to verify that the medium is authentic via a signature of a medium ID and/or other information and to disallow usage of content stored on the medium when the disk is not authentic, wherein authenticity of the medium is provided by use of a public key cryptosystem such that only one entity can generate the signature, but any entity can verify the signature.

Regarding Claim 3,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the medium of claim 2, in addition, Benaloh discloses performing a plurality of security checks and permitting playback of the content provided that the plurality of security checks are successful (Column 7, lines 31-47; and Column 9, line 61 to Column 11, line 12); and Kyle discloses that the program logic is configured to perform a plurality of security checks and permit playback of the content provided that the plurality of security checks are successful (Column 3, line 28 to Column 4, line 30; Column 4, line 57 to Column 5, line 24; and Column 7, line 59 to Column 8, line 5).

Regarding Claim 4,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the medium of claim 3, in addition, Kyle discloses that the program logic is configured to invoke at least one cryptographic operation supported by at least one of the authorized playback devices (Column 4, line 57 to Column 5, line 14).

Regarding Claim 5,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the medium of claim 3, in addition, Kyle discloses that the program logic is configured to perform at least one operation necessary for decryption of the content by at least one of the authorized playback devices (Column 4, line 57 to Column 5, line 14).

Regarding Claim 6,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the medium of claim 2, in addition, Kyle discloses that a subset of the authorized playback devices encompass a plurality of models, each model having a model-specific vulnerability, and the medium further comprising program logic which, when executed by a device of each vulnerable model, is configured to mitigate the vulnerability affecting the vulnerable playback devices, and perform at least one operation necessary for the vulnerable playback device to decrypt the content (Column 4, lines 34-56; Column 5, lines 32-60; and Column 8, lines 6-19).

Regarding Claim 7,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the medium of claim 6, in addition, Kyle discloses that the program logic includes executable code for a Turing-complete virtual machine (Column 3, line 66 to Column 4, line 6; and Column 7, line 59 to Column 8, line 5).

Regarding Claim 8,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the medium of claim 6, in addition, Benaloh discloses that the operation necessary to decrypt includes updating a cryptographic key contained in the playback device (Column 7, lines 31-47; and Column 9, line 61 to Column 11, line 12).

Regarding Claim 9,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the medium of claim 6, in addition, Kyle discloses that the program logic for mitigating includes native executable code configured to detect whether security of a vulnerable device has been compromised (Column 4, lines 34-56; Column 5, lines 32-60; and Column 8, lines 6-19).

Regarding Claim 10,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the medium of claim 6, in addition, Kyle discloses that the program logic for mitigating includes native executable code configured to correct a vulnerability in a vulnerable device (Column 4, lines 34-56; Column 5, lines 32-60; and Column 8, lines 6-19).

Regarding Claim 11,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the medium of claim 6, in addition, Benaloh discloses that the player comprises firmware (Column 7, lines 48-53; and Column 11, lines 13-42); and Kyle discloses that the program logic for mitigating includes an upgrade to the player for correcting at least one vulnerability (Column 3, line 28 to Column 4, line 30; Column 4, line 57 to Column 5, line 14; and Column 7, line 59 to Column 8, line 19).

Regarding Claim 12,

Benaloh discloses a device for securely playing content, the content including a plurality of regions each having multiple versions thereof, the device comprising:

A media reader for use in reading data from a storage medium (Figure 1);

A nonvolatile memory containing a set of cryptographic player keys for use with a broadcast encryption system (Column 3, line 65 to Column 4, line 6; and Column 9, line 61 to Column 11, line 12);

A bulk decryption module for decrypting encrypted content from the storage medium (Column 3, line 65 to Column 4, line 6; and Column 9, line 61 to Column 11, line 12);

Select a version of each of the plurality of regions, thereby generating a set of selected versions (Column 9, line 61 to Column 11, line 12);

Provide a correct set of decryption keys for decrypting each of the selected versions (Column 9, line 61 to Column 11, line 12);

Decrypt the selected versions, whereby a combination of the versions selected in the course of playing content from the storage medium uniquely identifies the device (Column 9, line 61 to Column 11, line 12); and

At least one codec for decoding content (Column 3, line 65 to Column 4, line 6);

But does not explicitly disclose identifiers of revoked media, a Turing-complete interpreter for executing program logic, the program logic configured to install from the media reader, cryptographically authenticating identifiers of revoked media, verifying whether valid digital signatures contained on the storage medium authenticate the storage medium and verifying whether the storage medium is identified as revoked.

Nonaka, however, discloses identifiers of revoked media, cryptographically authenticating identifiers of revoked media, and verifying whether the storage medium is identified as revoked in the nonvolatile memory (Paragraphs 105, 130, 137, 144, and 223-234). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the revocation methods of Nonaka into the content protection system of Benaloh in order to allow the system to revoke entities, such as devices and media, that are to be disallowed access to content, thereby providing better assurance that media and devices are proper before allowing content usage.

Kyle, however, discloses a Turing-complete interpreter for executing program logic, the program logic configured to install from the media reader (Column 3 , line 28 to Column 4, line 30; Column 4, line 57 to Column 5, line 14; Column 7, line 59 to Column 8, line 5; and Column 9, lines 19-29). It would have been

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obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the self protecting data package system of Kyle into the content protection system of Benaloh as modified by Nonaka in order to allow the system to update the player and anti-virus software, thereby maintaining security of the system with ease, as well as to provide self-sufficient data packages that can perform compression, decryption, virus checking, etc. without the need of specialized hardware or software.

Morito, however, discloses verifying whether valid digital signatures contained on the storage medium authenticate the storage medium (Column 7, line 38 to Column 8, line 13; and Column 9, line 51 to Column 10, line 9). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the signature and authentication techniques of Morito into the content protection system of Benaloh as modified by Nonaka and Kyle in order to allow the system to verify that the medium is authentic via a signature of a medium ID and/or other information and to disallow usage of content stored on the medium when the disk is not authentic, wherein authenticity of the medium is provided by use of a public key cryptosystem such that only one entity can generate the signature, but any entity can verify the signature.

Regarding Claim 13,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the device of claim 12, in addition, Kyle discloses an interpreter for a Turing-complete language, wherein the interpreter is configured to obtain the program logic from the drive and execute the program logic (Column 3 , line 28 to Column 4, line 30; Column 4, line 57 to Column 5, line 14; and Column 7, line 59 to Column 8, line 5).

Regarding Claim 15,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the device of claim 12, in addition, Benaloh discloses that the combination of versions selected during the course of playback of any one storage medium does not uniquely identify the device and the combination of versions selected during the course of playback of a plurality of storage media does uniquely identify the device (Column 14, lines 41-50).

Regarding Claim 16,

Benaloh discloses a method for playing encrypted content from a storage medium, the method comprising:

Retrieving at least one player key from a nonvolatile memory (Column 3, line 65 to Column 4, line 6; and Column 9, line 61 to Column 11, line 12);

Using the at least one player key with a broadcast encryption system (Column 3, line 65 to Column 4, line 6; and Column 9, line 61 to Column 11, line 12);

Using a result of the broadcast encryption system to decrypt at least a portion of the content (Column 3, line 65 to Column 4, line 6; and Column 9, line 61 to Column 11, line 12);

Selecting a variant from a plurality of variants for each of a plurality of portions of the content, wherein the media player device is capable of decrypting the selected variant and the media player lacks at least one cryptographic key required to decrypt at least one non-selected variant for each portion (Column 3, line 65 to Column 4, line 6; and Column 9, line 61 to Column 11, line 12);

Providing a correct set of decryption keys for decrypting each selected variant (Column 3, line 65 to Column 4, line 6; and Column 9, line 61 to Column 11, line 12);

Decrypting each selected variant using the provided correct set of decryption keys (Column 3, line 65 to Column 4, line 6; and Column 9, line 61 to Column 11, line 12);

But does not explicitly disclose verifying a digital signature for authenticating the medium, reading program logic for a Turing-complete interpreted language from the medium, using an interpreter to execute the program logic wherein the interpreter performs operations specified in the program logic including installing from a media player device, or use of identifiers of revoked media.

Nonaka, however, discloses cryptographically authenticating identifiers of revoked media, verifying whether valid digital signatures contained on the medium authenticate the medium, and verifying whether the medium is identified as revoked in the nonvolatile memory (Paragraphs 105, 130, 137, 144, and 223-234). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the revocation methods of Nonaka into the content protection system of Benaloh in order to allow the system to revoke entities, such as devices and media, that are to be disallowed access to content, thereby providing better assurance that media and devices are proper before allowing content usage.

Kyle, however, discloses reading program logic for a Turing-complete interpreted language from the medium, using an interpreter to execute the program logic wherein the interpreter performs operations specified in the program logic including installing from a media player device (Column 3 , line 28 to Column 4, line 30; Column 4, line 57 to Column 5, line 14; Column 7, line 59 to Column 8, line 5; and Column 9, lines 19-29). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the self protecting data package system of Kyle into the content protection system of Benaloh as modified by Nonaka in order to allow the system to update the

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player and anti-virus software, thereby maintaining security of the system with ease, as well as to provide self-sufficient data packages that can perform compression, decryption, virus checking, etc. without the need of specialized hardware or software.

Morito, however, discloses verifying a digital signature for authenticating the medium (Column 7, line 38 to Column 8, line 13; and Column 9, line 51 to Column 10, line 9). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the signature and authentication techniques of Morito into the content protection system of Benaloh as modified by Nonaka and Kyle in order to allow the system to verify that the medium is authentic via a signature of a medium ID and/or other information and to disallow usage of content stored on the medium when the disk is not authentic, wherein authenticity of the medium is provided by use of a public key cryptosystem such that only one entity can generate the signature, but any entity can verify the signature.

Regarding Claim 19,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the method of claim 16, in addition, Nonaka discloses accessing a media revocations list to determine whether the medium has been revoked (Paragraphs 105, 130, 137, 144, and 223-234).

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Regarding Claim 20,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the device of claim 12, in addition, Benaloh discloses that the set of cryptographic player keys is unique to the player and the program logic is configured to select a unique set of versions representing the content using the unique set of cryptographic player keys (Column 9, line 61 to Column 11, line 12).

Regarding Claim 21,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the medium of claim 3, in addition, Benaloh discloses that the program logic that is configured to perform a plurality of security checks generates a security check result, the security check result for embedding into content rendered by a playback device on which the security check is performed (Column 9, line 61 to Column 11, line 12).

Regarding Claim 22,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the medium of claim 2, in addition, Benaloh discloses that the program logic is adapted to perform at least one security check of a playback device seeking to play the content, the at least one security check adapted to verify at least one of playback device identity, including at least one of player serial number, specific subscriber information, player model, or player software version, or

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a result of cryptographic processing adapted to fail verification operation if executed on at least one of an unauthorized or revoked or compromised playback device (Column 7, lines 31-47; and Column 9, line 61 to Column 11, line 12).

Regarding Claim 23,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the device of claim 12, in addition, Benaloh discloses media verification logic configured to perform a security check that interrogates a playback environment to verify at least one of playback device identity, including at least one of player serial number, specific subscriber information, player model, or player software version, or a result of cryptographic processing adapted to fail verification operation if executed on at least one of an unauthorized or revoked or compromised playback device (Column 7, lines 31-47; and Column 9, line 61 to Column 11, line 12).

Regarding Claim 24,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the device of claim 12, in addition, Kyle discloses that the Turing-complete interpreter is adapted to execute program logic (Column 3, line 28 to Column 4, line 30; Column 4, line 57 to Column 5, line 14; and Column 7, line 59 to Column 8, line 5) and Nonaka discloses that the program logic does not decrypt a selected

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version if the program logic identifies the media as revoked
(Paragraphs 232-234).

Regarding Claim 25,

Benaloh as modified by Nonaka, Kyle, and Morito discloses the method of claim 16, in addition, Benaloh discloses that the program logic is adapted to perform at least one security check of a playback device seeking to play the content, the at least one security check adapted to verify at least one of playback device identity, including at least one of player serial number, specific subscriber information, player model, or player software version, or a result of cryptographic processing adapted to fail verification operation if executed on at least one of an unauthorized or revoked or compromised playback device, and to inhibit at least one of full quality playback or playback if at least one security check fails (Column 7, lines 31-47; and Column 9, line 61 to Column 11, line 12).

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benaloh in view of Nonaka, Kyle, and Morito, further in view of Sugahra (EP 0 668 695 A2).

Benaloh as modified by Nonaka, Kyle, and Morito does not explicitly disclose means for reducing during a rendering process an output quality of the content in dependence upon whether a security

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requirement specified by the storage medium for high quality output is met.

Sugahra, however, discloses means for reducing during a rendering process an output quality of the content in dependence upon whether a security requirement specified by the storage medium for high quality output is met (Column 9, line 50 to Column 12, line 4). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the data quality altering system of Sugahra into the content protection system of Benaloh as modified by Nonaka, Kyle, and Morito in order to allow the device to alter the content that is displayed based on numerous factors, including country, rating, viewer's age, device's and medium's protection levels, and the like, thereby allowing a single piece of content to be viewed in many different forms dependent upon the above.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benaloh in view of Nonaka, Kyle, and Morito, further in view of Foote (U.S. Patent 6,164,853).

Benaloh as modified by Nonaka, Kyle, and Morito discloses the method of claim 16, in addition, Kyle discloses that the interpreter performs operations specified in the program logic to respond to selections from a user (Column 3, line 28 to Column 4, line 30; Column 4, line 57 to Column 5, line 14; and Column 7, line 59 to Column 8, line 5);

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but does not explicitly disclose that the user selections include button presses on a remote control.

Foote, however, discloses that the user selections including button presses on a remote control (Column 1, lines 25-39). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the remote of Foote into the content protection system of Benaloh as modified by Nonaka, Kyle, and Morito in order to enable a user to operate the player from the comfort of a user's chair or sofa, thereby eliminating the need to physically interact with the player itself.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benaloh in view of Nonaka, Kyle, and Morito, further in view of Ford (Ford, Susan, "Advanced Encryption Standard (AES) Questions and Answers", 10/2/2000, pp. 1-5).

Benaloh as modified by Nonaka, Kyle, and Morito discloses the method of claim 16, in addition, Kyle discloses that the program logic directs the player to perform a cipher operation via the interpreter (Column 3, line 28 to Column 4, line 30; Column 4, line 57 to Column 5, line 14; and Column 7, line 59 to Column 8, line 5); but does not explicitly disclose that the cipher operation is an AES cipher operation.

Ford, however, discloses that the cipher operation is an AES block cipher operation (Pages 1-5). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate

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the encryption algorithm of Ford into the content protection system of Benaloh as modified by Nonaka, Kyle, and Morito in order to use an encryption algorithm that provides high security, performance, efficiency, ease of implementation, and flexibility and that is easy to defend against power and timing attacks.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nonaka (U.S. Patent Application Publication 2003/0046238).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY D. POPHAM whose telephone number is (571)272-7215. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571)272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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